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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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09/756,232

01/09/2001

Khiem Le

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06/06/2006

SQUIRE, SANDERS & DEMPSEY L.L.P.  
14TH FLOOR  
8000 TOWERS CRESCENT  
TYSONS CORNER, VA 22182

EXAMINER

CORRIELUS, JEAN M

ART UNIT

PAPER NUMBER

2162

DATE MAILED: 06/06/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>		<b>Applicant(s)</b>	
	09/756,232		LE ET AL.	
	<b>Examiner</b>		<b>Art Unit</b>	
	Jean M. Corrielus		2162	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 17 March 2006.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-19,21-40 and 42-50 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-18,21-40 and 42-50 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                        | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                                    |

### DETAILED ACTION

1. This office action is in response to the Request For Consideration filed on March 27, 2006, in which claims 1-19, 21-40 and 42-50 are presented for further examination.

#### *Response to Arguments*

2. Applicant's arguments with respect to claims 1-19, 21-40 and 42-50 have been considered but are moot in view of the new ground(s) of rejection.

#### *Claim Rejections - 35 USC § 101*

3. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

4. Claims 1-19, 21-40 and 42-50 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter, specifically, as directed to an abstract idea.

Claims 1-19, 21-40 and 42-50 in view of **MPEP section 2106 IV.B.2. (b)** define non-statutory processes because they merely manipulate an abstract idea without a claimed limitation to a practical application. The language of the claim raises a question as to whether the claim is directed merely to an abstract idea that is not tied to a technological art, environment or machine which would result in a practical application producing a concrete, useful, and tangible result to form the basis of statutory subject matter under 35 U.S.C. 101. Data structure not claimed as embodied in computer-readable media is descriptive material per SE and is not statutory because they are neither physical nor statutory processes. Structural and functional interrelationship with a general-purpose computer for permitting claimed functions to be realized are not provided in the claims. In contrast, a claimed system should define structural and functional

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interrelationships between data structures or functional parts and a computer system which permit the data functions to be realized, and is statutory. Thus, the claimed are rejected as being non-statutory. Additionally, the invention, as claimed, is directed to the manipulation of an abstract idea with no practical application in the technology arts.

The Supreme Court has repeatedly held that abstractions are not patentable. "An idea of itself is not patentable". Rubber-Tip Pencil Co. V. Howard, 20 wall. 498, 07. Phenomena of nature, though just discovered, mental processes, abstract intellectual concepts are not patentable, as they are the basis tolls of scientific and technological work Gottschalk V. Benson, 175 USPQ 673, 675 (S Ct 1972). It is a common place that laws of nature, physical phenomena, and abstract ideas are not patentable subject matter Parker V. Flook, 197 USPQ 193, 201 (S Ct 1978). A process that consists solely of the manipulation of an abstract idea is not concrete or tangible. See In re Wamerdam, 33 F.3d 1354, 1360, 31 USPQ2d 1754, 1754, 1759 (Fed. Cir. 1994). See also Schrader, 22 F.3d at 295, 30 USPQ2d at 1459.

The claimed invention as a whole must accomplish a practical application. That is, it must produce a "useful, concrete and tangible result." State Street, 149 F.3d at 1373, 47 USPQ2d at 1601-02. The purpose of this requirement is to limit patent protection to inventions that possess a certain level of "real world" value, as opposed to subject matter that represents nothing more than an idea or concept, or is simply a starting point for future investigation or research (Brenner v. Manson, 383 U.S. 519, 528-36, 148 USPQ 689, 693-96); In re Ziegler, 992, F.2d 1197, 1200-03, 26 USPQ2d 1600,1603-06 (Fed. Cir. 1993)). Accordingly, a complete disclosure should contain some indication of the practical application for the claimed invention, i.e., why the applicant believes the claimed invention is useful.

Apart from the utility requirement of 35 U.S.C. 101, usefulness under the patent eligibility standard requires significant functionality to be present to satisfy the useful result aspect of the practical application requirement. See *Arrhythmia*, 958 F.2d at 1057, 22 USPQ2d at 1036. Merely claiming nonfunctional descriptive material stored in a computer-readable medium does not make the invention eligible for patenting. For example, a claim directed to a word processing file stored on a disk may satisfy the utility requirement of 35 U.S.C. 101 since the information stored may have some "real world" value. However, the mere fact that the claim may satisfy the utility requirement of 35 U.S.C. 101 does not mean that a useful result is achieved under the practical application requirement. The claimed invention as a whole must produce a "useful, concrete and tangible" result to have a practical application.

Claims 1, 19, 32 and 40 appear to be directed to an abstract idea rather than a practical application of the idea, since no tangible result appears to occur, what is determining is neither applied practical application nor made available for use in a disclosed practical application so as to constitute a tangible result. Instead, it appears to be just a thought or a comparison of items. Claims 1 and 19 appear to be directed to an abstract idea, which do not provide a practical application in the technological arts. It appears to have no post computer process activity is found in the technological arts. The method of communicating information is not a physical transformation. Thus, no physical transformation is performed, no practical application is found in the claims. Such managing data as claimed can be done in a piece of paper. Also, the claims do not appear to correspond to a specific machine or manufacture disclosed within the specification and thus encompass any product of the class configured in any manner to perform the underlying process, and are thus rejected as being directed. Claims 1 and 19 are not **tangibly**

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**embodied** in a manner so as to **be executable** as the only hardware is in an intended use statement. The claims appears to have anything subjective to raise an issue with whether they produce a concrete result.

Claims 32 and 40 appears to be solely non-functional descriptive material included on a device and non-statutory and it appears that the device only includes non-functional descriptive material, data per se

Therefore, claims 1, 19, 32 and 40 are directed to an abstract idea that is not tied to a technological art, environment or machine which would result in a practical application producing a concrete, useful, and tangible result to form the basis of statutory subject matter under 35 U.S.C. 101. Applicant is advised to amend the claims by specifying the claim being directed to a practical application and producing a tangible result **being executed** by a general-purpose computer in order to correct the above indicated deficiencies.

The dependent claims 2-18, 21-31, 33-39 and 42-50 are rejected for fully incorporating the errors of their respective base claims by dependency. Thus, claims 2-18, 21-31, 33-39 and 42-50 are merely abstract idea and are being processed without any links to a practical result in the technology arts and without computer manipulation. They are not **tangibly embodied** in a manner so **as to be executable** as the only hardware is in an intended use statement.

***Claim Rejections - 35 USC § 112***

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claims 1-19, 21-40 and 42-50 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The body of claim 1 does not appear to actually support the preamble by including a step or steps, which accomplish that act. Claims 3, 17, 30 recite “sending information”; “transmitting “ in claims 19, 22, 34, 40. It is unclear as to where the information is being sent and transmitted. In claims 4, 6, 7, 11, 12, 23, 25, 26, 27, 28, 35, 38, 44, 45, 46, 47, absent in the specification to assist with the determination, the question then turns to the language of the claim itself and how one having ordinary skill in the art would encode information and compress information. Without providing substantial evidence, it is unclear as to how one would encode the information. It appears that the limitation of claim 9 does not support or further limited claim 1. There is no relationship between claim 9 and the limitation of claim 1. Claim 18 recites “decompressing information”. The information cannot be decompressed without first compress.

7. Claim 32 recites the limitation "the compressed" in 6. There is insufficient antecedent basis for this limitation in the claim.

***Claim Rejections - 35 USC § 103***

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

10. Claims 1, 2, 14, 15, 19, 21, 27, 28, 33-50 are rejected under 35 U.S.C. 103(a) as being unpatentable over Holmes US Patent no. 5,864,860 and Claassen et al., (hereinafter "Claassen") US Patent no. 6,028,962.

As to claims 1, 19, 32, 40, Holmes discloses a system and method for compressing a data sequence having a plurality of records, wherein each record has a plurality of fields with each field beings classified to contain data items. In particular, Holmes discloses the claimed "classifying at least one item of a current list containing a plurality of items by comparing the current list with a reference list containing a plurality of items by comparing the current list with a reference list containing a plurality of items" (col.3, lines 2-10; col.4, lines 21-25; col.4, lines 37-43); "based upon the classifying of the at least one item of the current list forming a



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compressed list including said at least one item” (col.4, lines 13-16, lines 44-45, lines 54-56) and “transmitting said compressed list” (col.4, lines 56-59). However, Holmes does not explicitly determine a type of classification based on said comparing and using the determined type to control how the information is communicated.

On the other hand, Claassen discloses the claimed features “determine a type of classification based on said comparing and using the determined type to control how the information is communicated” col.3, lines 25-45). It would have been obvious to one having ordinary skill in the art at the time the invention was made to combine the teachings of the cited references, wherein the method of compressing the data sequence of Holmes would incorporate the use of determine a type of classification based on said comparing and using the determined type to control how the information is communicated, in the same conventional manner as Claassen. One having ordinary skill in the art at the time the invention was made would have found it motivate to use the determined type of classification for the purpose of efficiently improving effect on the compression, thereby enabling a reduction in the amount of data to be transferred

As to claims 2-4, 14-18, 21-24, 30, 31, 33-39 and 42-50, Holmes and Claassen disclose the substantially the invention as claimed. In addition, Homes discloses the claimed “wherein said compressed list includes information regarding a difference between a current item list and a reference item list” (col.3, lines 7-10; col.4, lines 37-50).

11. Claims 5-13 and 25-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Holmes US Patent no. 5,864,860 and Claassen et al., (hereinafter "Claassen") US Patent no. 6,028,962 as applied to claims 1-4, 14-19, 21-24, 30-40 and 42-49 above, and further in view of Svanbro et al (hereinafter Svanbro") US Patent no. 6,535,925.

As to claim 25, Holmes and Svanbro disclose substantially the invention as claimed. However, Holmes does not explicitly disclose the use of encoding the information regarding said difference prior to sending said information from said first entity to said second entity. On the other hand, Svanbro discloses the claimed feature "encoding the information regarding said difference prior to sending said information from said first entity to said second entity"(col.5, line 15-col.8, line 63). Therefore, it would have been obvious to one having ordinary skill in the art combine the teachings of cited references, wherein the database server, provided therein (see Holmes' fig.1) would incorporate the use of a robust and efficient compression of list of items, in the same conventional manner as discloses by Svanbro. One having ordinary skill in the art would have found it obvious to utilize such a combination for the purpose of efficiently improving effect on the compression, thereby enabling a reduction in the amount of data to be transferred.

As to claims 5 and 26, Holmes and Svanbro disclose substantially the invention as claimed. However, Holmes does not explicitly disclose the claimed wherein encoding the information comprises encoding information regarding a position of a newly added item to said reference item list. On the other hand, Svanbro discloses the claimed feature "wherein encoding the information comprises encoding information regarding a position of a newly added item to said

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reference item list” (col.5, line 15-col.8); and “encoding information regarding which item in said reference item list is not in said current item list” (col.5, line 15-col.8, line 63). Therefore, it would have been obvious to one having ordinary skill in the art combine the teachings of cited references, wherein the database server, provided therein (see Holmes’ fig.1) would incorporate the use of a robust and efficient compression of list of items, in the same conventional manner as discloses by Svanbro. One having ordinary skill in the art would have found it obvious to utilize such a combination for the purpose of efficiently improving effect on the compression, thereby enabling a reduction in the amount of data to be transferred.

As to claims 6 and 27, Holmes and Svanbro disclose substantially the invention as claimed. However, Holmes does not explicitly disclose the claimed wherein encoding the information comprises encoding information regarding which item in said reference item list is not in said current item list. On the other hand, Svanbro discloses the claimed feature “wherein encoding the information comprises encoding information regarding which item in said reference item list is not in said current item list”(col.5, line 15-col.8, line 63). Therefore, it would have been obvious to one having ordinary skill in the art combine the teachings of cited references, wherein the database server, provided therein (see Holmes’ fig.1) would incorporate the use of a robust and efficient compression of list of items, in the same conventional manner as discloses by Svanbro. One having ordinary skill in the art would have found it obvious to utilize such a combination because that would provide Holmes’ system the enhanced capability of efficiently compressing a header of a real-time communication packet.

As to claims 7-11 and 28, Holmes and Svanbro disclose substantially the invention as claimed. However, Holmes does not explicitly disclose the claimed wherein encoding the information comprises encoding information regarding content of at least one item in said reference item list. On the other hand, Svanbro discloses the claimed feature “wherein encoding the information comprises encoding information regarding content of at least one item in said reference item list”(col.5, line 15-col.8, line 63). Therefore, it would have been obvious to one having ordinary skill in the art combine the teachings of cited references, wherein the database server, provided therein (see Holmes’s fig.1) would incorporate the use of a robust and efficient compression of list of items, in the same conventional manner as discloses by Svanbro. One having ordinary skill in the art would have found it obvious to utilize such a combination for the purpose of efficiently improving effect on the compression, thereby enabling a reduction in the amount of data to be transferred

As to claim 29, Holmes and Svanbro disclose substantially the invention as claimed. However, Holmes does not explicitly disclose the claimed wherein said information further comprises a type of encoding. On the other hand, Svanbro discloses the claimed feature “wherein said information further comprises a type of encoding” (col.5, lines 15-col.6, line 65). Therefore, it would have been obvious to one having ordinary skill in the art combine the teachings of cited references, wherein the database server, provided therein (see Holmes’s fig.1) would incorporate the use of a robust and efficient compression of list of items, in the same conventional manner as discloses by Svanbro. One having ordinary skill in the art would have found it obvious to utilize

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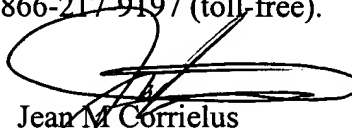
such a combination for the purpose of efficiently improving effect on the compression, thereby enabling a reduction in the amount of data to be transferred.

***Conclusion***

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jean M. Corrielus whose telephone number is (571) 272-4032. The examiner can normally be reached on 10 hours shift.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Breene can be reached on (571) 272-4107. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Jean M Corrielus  
Primary Examiner  
Art Unit 2162

June 3, 2006